

## **UTRAC: UDOT'S Process for Assessing Research Needs**

The process of prioritizing research needs for the Utah Department of Transportation (UDOT) is based around a collaborative, annual workshop, organized by the UDOT Research Division. This workshop has come to be known as “UTRAC”, the acronym for the Utah Transportation Research Advisory Council. The UTRAC Workshop was initiated in 1993, and has been a very successful process. The process has been modified several times, and underwent some significant revisions in 2005.

The key steps employed in the UTRAC research prioritization process at UDOT are shown below. Although the workshop plays a central role in the process, a number of steps are needed before and after the workshop to make the process complete. The steps and deadlines for the 2007 Workshop are:

1. Needs are evaluated in 10 separate discipline areas. A UDOT key leader is selected to lead each group, and a Research Division contact person works with each group. The discipline areas are:

- a. Construction
- b. Maintenance
- c. Materials & Pavements
- d. Hydraulics
- e. Environmental
- f. Roadway
- g. Planning & Asset Management
- h. ITS & Traffic and Safety
- i. Geotechnical
- j. Structural



2. Problem Statements are solicited from UDOT personnel, University researchers, consultants, and others. These Problem Statements define a need within the Department, and also identify a key UDOT Champion who will direct the research, a basic scope of work, and a plan for implementation. Problem Statements are submitted to the Group Leader (list available on the Research Web Site) or directly to the Research contact person.  
Deadline for Problem Statement submittal: Feb 6, 2007.
3. Each Problem Statement is reviewed by the Research contact person for the applicable discipline group. The review includes a literature search to determine if similar work has been performed in Utah or elsewhere, or if significant knowledge on the topic is available as the Problem Statement is discussed. The scopes are evaluated to insure that well-defined work tasks and clear deliverables are envisioned, and that implementation is feasible.

4. A one-day workshop is convened to review the Problem Statements and prioritize them. The 2007 Workshop is tentatively scheduled for March 6, 2007, at the SLCC Miller Campus. The workshop includes about 150 people from UDOT, FHWA, key consulting and construction firms, the Universities, other state agencies, and the public. During the workshop, each of the discipline area groups meet to discuss, evaluate, and prioritize the Problem Statements. At the end of the Workshop, each group produces a list of their top 3 to 5 Problems.
5. The Research Program Manager organizes a list of the highest priority Problem Statements (about 30 to 40 projects) and evaluates the funding needs. The list is reviewed by some of UDOT's Senior Leaders, and priorities may be shifted based on the overall needs of the Department.
6. A Champion Commitment Form is required from the Champion for each prioritized Problem Statement.
7. Available research funding (from Federal and State sources) is applied to the list of prioritized Statements, starting at the top of the list. The research funding comes from the annual Research Division budget.
8. A Project Manager (PM) from the Research Division is assigned to manage each funded project.
9. A Principal Investigator (PI) is selected to execute the work outlined in each Problem Statement. The PI is usually a University professor or engineering consultant, but may be an employee of UDOT or another government agency. In some cases, the PI helped draft the original Problem Statement.
10. A Technical Advisory Committee (TAC) is created to guide the research, the project scope is refined, and contracts are written for the work.
11. During the duration of the project, the Champion, TAC, and PM monitor the work, get progress reports, and prepare for implementation of the results. Project durations range from six months to several years, depending on the project.
12. Projects are completed, final reports are provided, edited and published, and tools are provided. Implementation is initiated with the Champion and other UDOT participants, often including training workshops, specifications, manuals, etc.

More information about the UTRAC process, including information about past Problem Statements and Workshops, copies of Problem Statement forms, and information about the 2007 UTRAC Workshop, can be found on the Research portion of the UDOT web page.

If you would like to participate in the UTRAC process, by identifying a need (preparing a Problem Statement), participating in the selection process, or serving as a TAC member, please contact the UDOT Research Division.